

ON SOME SAWFLIES FROM THE AUSTRALIAN REGION (HYMENOPTERA TENTHRIDINIDAE)

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THIS paper begins with a general view of the Sawflies belonging to the South Australian Museum, Adelaide, and, in addition, descriptions of some new or little known species in the collection of the same Museum are given. The material upon which the paper is based was submitted to me for study by the kindness of Mr. Edgar R. Waite, Director of the Museum. All the types of the new species have been returned to that institution.

The genera and species treated in this paper are mainly arranged according to Rohwer's (6) proposed classification of the group.

The Australian fauna, though very interesting, is so far only incompletely known. It is therefore to be hoped that Australian entomologists, especially collectors in the western and central districts, will in future collect more material of this group. The author of this paper will be only too pleased to work on other collections from the Australian regions.

A LIST OF THE TENTHREDINOIDEA IN THE SOUTH AUSTRALIAN MUSEUM, AND THEIR LOCALITIES.

FAMILY XIPHYDRIDAE.

Xiphydria leai sp. nov. Queensland: Cairns district.

FAMILY ARGIDAE.

Trichorhachus australis Westw. W. Aust.: Capel River (W. D. Dodd).

FAMILY TENTHREDINIDAE.

Caliroa limacina Retz. Tasm.: Hobart and Launceston.

FAMILY PERREYIDAE.

Philomastix macleayi Westw. N.S. Wales: Dorrigo (W. Heron).

P. nancarrowi Frogg. N.S. Wales: Dorrigo (W. Heron).

FAMILY PTERYGOPHORIDAE.

- Pterygophorus uniformis** Kirby. N.S. Wales: Clarence River (A. and F. R. Zietz).
- P. analis** Costa. Tasm.: Launceston; S. Aust.: (F. R. Zietz), Balhannah (E. Guest).
- P. cygnus** Kirby. N.S. Wales: Clarence River (A. and F. R. Zietz).
- P. cyaneus** Leach. Queensl.: Bowen (A. Simson); N.S. Wales: Sydney (A. M. Lea), Wentworth (Miss Cushman), Cook's River; S. Aust.
- P. interruptus** Klug. S. Aust.: Lucindale (F. Secker and B. A. Feuerheerd), Victor Harbour, Adelaide (J. G. O. Tepper), Keith, Tintinara (G. Farrand), Bull Island; N.S. Wales: Lindfield, Galston (D. Dumbrell), Sydney (A. M. Lea), Colo Vale (W. W. Froggatt), Wentworth Falls (A. Simson); Tasm. (A. Simson), St. Helens (F. M. Littler); N. Queensl. (Blackburn's collection).
- P. cinctus** Klug. Tasm.: Kelso, Launceston; N.S. Wales: Sydney, Lawson, Hurstville, Eden.
- P. cinctus**, var. **insignis** Kirby. Queensl.: Rockhampton (A. M. Lea), Brisbane (R. Hidge); Tasm. (A. Simson).
- Phylacteophaga eucalypti** Frogg. N.S. Wales: Sydney, bred from eucalyptus leaves (W. B. Gurney).
- Diphamorphos apicalis** sp. nov. S. Aust.: Mount Lofty, Adelaide.
- Polyclonus atratus** Kirby. Queensl.: Mount Tambourine.
- Eurys laetus** Westw. Tasm.: (A. Simson); S. Aust. (Rev. A. P. Burgess); Viet.: Mount Buffalo (Rev. T. Blackburn).
- Neoeurys candatus** Morice. Tasm.: Cradle Mountain (H. J. Carter and A. M. Lea).
- N. tasmanicus** Roh. Tasm.: Cradle Mountain (H. J. Carter and A. M. Lea).
- N. ventralis** sp. nov. Tasm.: Cradle Mountain.
- N. scutellaris** sp. nov.: Tasm.: Hobart.
- N. affinis** sp. nov.: S. Aust.: Port Lincoln.
- N. leai** sp. nov.: S. Aust.: Ooldea.
- N. pusillus** sp. nov.: S. Aust.: Mount Lofty Ranges.
- N. sp. nov. ?** S. Aust.: Kangaroo Island (J. G. O. Tepper).
- N. sp. nov. ?** Tasm.: Swansea (A. M. Lea).
- Clarissa carbonaria** sp. nov. N.S. Wales: Forest Reefs.
- C. variabilis** sp. nov.: S. Aust.: Mount Lofty; Queensl.: Brisbane.
- C. variabilis** var. **collaris** nov.: S. Aust.: Melrose and Kangaroo Island.
- C. variabilis** var. **obscurus** nov. S. Aust.: Melrose.

FAMILY PERGIDAE.

- Cerealces scutellata** Kirby. S. Aust.: Adelaide; N.S. Wales: Sydney.
- Perga dorsalis** Leach. S. Aust.: Mount Lofty, Blakiston, Nairne, Adelaide, Reynella; Tasm.; N.S. Wales: Blue Mountains, Sydney.
- P. schiodtei** Westw. W. Aust.: Warren River.
- P. kirbii** Leach. S. Aust.; N.S. Wales: Sydney.
- P. brevitarsis** Morice. S. Aust.: Yeelanna, Ardrossan (J. G. O. Tepper), Dowingville (— Willis); W. Aust.: Beverley (F. H. du Boulay), Badgebup.
- P. brevipes** sp. nov. S. Aust.: Yeelanna, Kangaroo Island.
- P. polita** Leach. S. Aust.: Balhannah (E. Guest), Adelaide, Darke's Peak, Nairne, Mount Lofty Ranges (S. H. Curnow), Maelaren Vale (Miss Morgan), Roseworthy (A. Rohin); Queensl.: Coen River (W. D. Dodd), Bowen (A. Simson).
- P. castanea** Kirby. N.S. Wales: Wentworth Falls.
- P. esenbecki** Westw. W. Aust.: Beverley (E. F. du Boulay), Badgebup.
- P. mayrii** Westw. Queensl.: Bowen (A. Simson).
- P. lucida** Roh. S. Aust. (Rev. A. P. Burgess); W. Aust.: Beverley (E. F. du Boulay).
- P. moricei** sp. nov. W. Aust.: Boulder.
- P. cressoni** Westw. W. Aust.: Beverley (E. F. du Boulay), Badgebup; S. Aust.: On mallee.
- P. christii** Westw. W. Aust.: Boulder (A. Bethune).
- P. waitei** sp. nov. S. Aust.: Murray River.
- P. guerinii** Westw. N.S. Wales: Wentworth Falls; S. Aust.: Kangaroo Island (J. G. O. Tepper).
- P. ferruginea** Leach. N.S. Wales: Sydney (A. M. Lea).
- P. latreillei** Leach. S. Aust.: Lucindale (B. A. Feuerheerdt).
- P. bella** Newm. S. Aust. (Rev. A. P. Burgess), Mindarie, Ardrossan, Kangaroo Island (J. G. O. Tepper), Adelaide, Balhannah (E. Guest), Burnside (Prof. Tate); Tasm. (A. Simson).
- P. bella** var. **rubripes** Roh. S. Aust.
- P. rugiceps** sp. nov. S. Aust.: Ardrossan and Kangaroo Island.
- P. sp. nov. ?** W. Aust.: Badgebup.
- Xyloperga halidaii** Westw. S. Aust.: Nuriootpa (J. G. O. Tepper).
- X. amenaida** Kirby. S. Aust.: Kangaroo Island.
- X. sp. nov. ?** S. Aust.

DESCRIPTIONS OF AND REMARKS ON NEW OR
LITTLE KNOWN SPECIES.**XIPHYDRIA LEAI** sp. nov.

♂ Head globose, about as broad as the thorax, not shining; vertex and posterior orbits finely transversely striated and edged behind with a thin carina; face and front reticulate; ocelli in a low triangle well below the supra-orbital line; postocellar line a little longer than the ocellocular line; ocell-occipital line about six times as long as the ocellocular line; middle fovea small and continued downwards as a narrow medial furrow, which disappears just above the antennae; antennal crest inconsiderable; the antennae 21-jointed, distinctly tapering towards the apex; intra-antennal space about four times as long as the antenuocular space; scape as long as the third joint, which is as long as $4 + 5$; pedicel half as long as the third joint; malar space evidently shorter than the width of the mandibles at the base; clypeus not extending over base of mandibles, broader than long, above not distinctly separated from the face, with fine longitudinal furrows, and with a small median tooth; thorax above finely reticulate, not shining; middle of the pronotum and the frontal part of the middle lobes of mesonotum more sparsely sculptured and somewhat shining; thorax beneath sparsely sculptured, shining; the mesopleurae, however, above more closely sculptured and not shining; abdomen very finely striated across, shining, without bunches of bristles on the sternites; apical sternite posteriorly broadly rounded.

Head fulvous; antennae, tips of mandibles, and a large spot on the vertex and front dark piceous; this spot is laterally deeply incised with a pale stripe, which reaches nearly to the hind margin of the head; a little above the antennae the spot suddenly becomes narrower, and extends forwards as a narrow stripe to base of clypeus; thorax and legs entirely ochraceous; wings hyaline; costa yellow, stigma and other nervures piceous; abdomen ochraceous, genital armature concolorous.

Long. corp., 9.5 mm.; antenna, 4 mm.; exp. alar., 14 mm.

Queensl.: Cairns district. A single specimen collected by Mr. A. M. Lea, after whom the species is named.

This interesting new species seems to me to be nearest to *X. flavopicta* Smith (10, 11) from New Zealand, and to *X. testacea* Moes. (4) from New Guinea, which I only know from Kirby's figure (1) and from the very brief descriptions. But the new species has entirely piceous antennae and ochraceous thorax and abdomen.

CALIROA LIMACINA Retz.

This species was no doubt imported to Australia from America or Eurasia, and is a serious pest on *Pyrus*, *Prunus*, and other fruit trees in all parts of the world.

PTERYGOPHORUS CINCTUS Klug.

Morice (5) was of the opinion that *P. distinctus* Roh., *P. insignis* Kirby, and *P. zonalis* Roh. are only aberrative specimens of *P. cinctus* Klug, and I think his opinion is correct.

DIPHAMORPHOS APICALIS sp. nov.

♀ Robust; head as broad as the thorax, behind the eyes a little enlarged, finely and closely punctured, with fine and short hairs, slightly shining, behind not earinated; vertex about four times as broad as long, laterally limited by distinct and deep furrows, and in the middle parted by a fine longitudinal furrow; posterior orbits moderately broad; eyes slightly converging downwards; postocellar furrow superficial; ocelli in a low triangle, the anterior one in the supraorbital line; postocellar line about as long as the ocellocular and ocelloccipital lines; frontal area distinct, but not much elevated, in the middle slightly depressed and laterally limited by not very deep furrows; below the anterior ocellus a fine impression which reaches to the median fovea; the median fovea is small and rounded; frontal crest moderately developed; antennae as long as the abdomen, 14–15-articulated, tapering towards the apex, and inserted close to the elypeus; pedicel as long as the scape; third joint as long as 4 + 5; the intermediate joints thickened apically, about as long as on the apex broad; clypeus apparently short, above and laterally separated from the front by distinct furrows; anterior margin nearly truncate, but, however, apparently rounded; labrum long, semicircular; malar space very narrow; thorax dorsally almost flat, thinly covered with some fine, short, and pale hairs, finely and closely punctured, shining; parapsidal furrows not deep; middle furrow almost wanting, and only in front manifest; scutellum moderately elevated, with some scattered punctures; front wings with the costa a little thickened before the stigma; stigma moderately broad, apically pointed; radial cellule with a very inconsiderable appendice; the first transversocubital nervure obliterated in the middle; legs with the hind tarsi shorter than the tibiae, and hind basitarsus as long as the three following joints together; abdomen very finely sculptured, shining; sheath (from above) short, triangular, apically with long, curved hairs, from the side broadly rounded with nearly straight apex.

Head dark piceous: labrum, base, and middle of the mandibles and palpi whitish yellow; thorax piceous; the angles of the pronotum, tegulae, the hinder sides of the middle lobes of the mesonotum, hind margin of the scutellum, and superior part of the pleurae more or less pale brownish; wings hyaline; base of the costa yellowish, stigma and nervures piceous; tip of coxae, trochanters, and legs pale yellow, femora below (hind femora with the exception of the over-side dark), and tips of hind tibiae and tarsal joints brownish; abdomen dark piceous, with the hinder parts of the segments more or less paler brown.

♂ The antennae are as long as the body, 20-articulated: the hind ocelli in the supraorbital line; hypopygium arcuately emarginated apically.

Thorax dark piceous, nearly black; on thorax only the upper part of the pleurae pale brown; abdomen wholly dark piceous, only the genital armature pale brown; otherwise as in the female.

Long. corp.: ♀ 4.5–5.5 mm., ♂ 4.5 mm. Exp. alar.: ♀ 11–13 mm., ♂ 10 mm.

S. Aust.: Mount Lofty (J. G. O. Tepper), Adelaide, 15.13 (H. H. D. Griffith). One female (paratype) from Mount Lofty in my own collection.

N.B.—The specimens from Adelaide are more pallid (the pallid markings being larger) on the infolded margins of the abdominal dorsal plates.

D. tibialis is near allied to *D. nigrescens* Roh., but is hardly identical with this species, judging from the brief description. The clypeus of the new species is not quite truncate, the vertex is parted by a manifest furrow, and the hind tibiae and tarsal joints are dark apically.

POLYCLONUS ATRATUS Kirby.

Rohwer (8) says that the antenna of the female of this species, beyond the second joint, has a ramus like *Pterygophorus*. This remark is not sufficient, because the antennae of *Pterygophorus* are differently constructed. The antenna of the females is 13–15-jointed, and the rami are about as long as the width of the joint (cf. Morice's fig. 9, pl. xii, *Pterygophorus uniformis*); besides, the colour of this species is otherwise not quite black, but of a visible dark green tinge.

According to Konow (3), *Ancyloneura* Cam. and *Cladomacra* Smith, are congeneric with *Polyclonus* Kirby, but this opinion, as far as concerned to *Ancylo-neura*, is certainly wrong (the antennae of the male of *Ancylo-neura* are simple, without rami), and the antenna of the figure by Kirby (1) is so differently drawn that, according to my opinion, *Cladomacra* cannot possibly be a *Polyclonus*.

CLARISSA Newman and NEOEURYS Roh.

The differences between the genera *Clarissa* and *Neocurys* are so insignificant that these, I think, in future ought to be treated as one and the same genus,

but may be divided into some subgenera. Rohwer (7) primarily separates them by the numbers of antennal joints, but Morice (5), having stated the variability of the antennal joint in this group, Rohwer (9) attempts to use the differences in the length of the clypeus to separate *Neoeurys* from *Clarissa*, with little success, however, and the thickness and length of the antennae and legs also vary very much. Most species of *Clarissa* are without metallic colour in contrast with the metallic coloured *Neoeurys*, but *C. anomocera* Roh. and *C. inconspicua* Kirby are, among others, distinctly of metallic colour. In this paper the author separates both these "genera" principally on account of the length and thickness of the antennae and legs. See otherwise remarks on the different new species described by him later on.

CLARISSA CARBONARIA sp. nov.

♀ Head about as wide as the thorax, viewed from the front as long as broad, narrower behind the eyes, finely reticulated, with fine and short hairs, and slightly shining; vertex very short, about four times as broad as long, with distinct lateral furrows, but without postocellar furrow, in the middle parted by a superficial longitudinal impression; posterior orbits narrow; eyes slightly converging downwards; the ocelli in a low triangle, the anterior one just below the supraorbital line; ocelloccipital line about half as long as the ocellocular line; postocellar line about one and a half times as long as the ocellocular line; antennal furrows manifest, but not very deep; frontal area moderately narrow, tapering downwards, the sides slightly elevated from the lateral ocelli to the not very high frontal crest; below the anterior ocellus a broad but shallow impression, which is downwards continued as a shallow furrow to the moderately developed, round median fovea; antennal grooves deep; antennae as long as the thorax, 12-jointed; the third joint is somewhat longer than the fourth, the seventh and the following ones broader than they are long, and on the under-side slightly serrated; supra-clypeal area convex; clypeus short, about three times as broad as long, almost flat, in the front slightly depressed, the anterior margin in the middle truncated, but the side-angles slightly rounded; labrum rounded; malar space moderately short; thorax rather convex, finely and closely reticulated, finely and sparsely hairy, slightly shining; parapsidal furrows feeble, being only deeper in front; middle furrow in front deep, posteriorly almost wanting; scutellum slightly convex; the radial cellule in the front wings not appendiculated; stigma narrow and strongly pointed; in the hind wings the radial cellule with a distinct appendix; legs normal; the hind tarsi apparently shorter than the tibiae; hind basitarsus as long as the two following joints together; abdomen with very fine transverse striae, slightly shining; sheath from above short, not very broad, and

backwards tapering, but apically not much pointed, and with some long hairs, viewed from the side longer than the hind tibiae, narrow, and behind rather narrowly rounded.

Wholly black; only the lowest part of the face with a slight green tinge, the palpi brown, and the tips of the femora and bases and spurs of the tibiae dirty whitish-yellow; wings infuscated with a darker shade below the stigma; abdomen wholly black.

Long. corp., 6 mm. Exp. alar., 12 mm. Antenna, 2.5 mm.

N.S. Wales: Forest Reefs (A. M. Lea).

Probably nearest to *C. atrata* Turner (12), but the abdomen is wholly black, and also clypeus and trochanters, without pale markings. *C. anomocera* Roh. is a smaller species, with a manifest metallic green tinge on the body.

CLARISSA VARIABILIS sp. nov.

♀ Head a little narrower than the thorax, narrowed behind the eyes, posteriorly not carinated, very finely and superficially sculptured, very shining, and with fine and short hairs; vertex about three times as broad as long, laterally limited by furrows occurring distinctly only in front, and in the middle divided by a shallow longitudinal furrow; postocellar furrow wanting; posterior orbits rather narrow; eyes converging towards the clypeus; ocelli in a low triangle, the lateral ones in the spuraorbital line; ocelloccipital line about as long as the ocellocular line and the postocellar line; antennal furrows broad and moderately deep; frontal area somewhat elevated, and their edges rounded and tapering downwards: below the anterior ocellus a shallow impression, which is downwards continued as a fine furrow to the oblong and not very great median fovea; between the antennae a very obtuse and low frontal crest; antennal grooves deep; antennae 10-11-jointed, the third joint about as long as the fourth and fifth together, the following shorter, but longer than broad, and on the under-side only very slightly serrated; supraclypeal area long and apparently convex; clypeus nearly as long as broad, flat, above separated from the front by a manifest furrow; tentorial foveae small; anterior margin of the clypeus in the middle truncate, but the side-angles are rounded; labrum apically broadly rounded; malar space not very narrow; thorax moderately convex, very finely reticulated and finely hairy, shining; parapsidal furrows in front deep, but posteriorly very shallow; middle furrow also in front deep, but posteriorly wanting; scutellum slightly convex; radial cellule in the front wings without appendicular cellule; stigma narrow and strongly pointed; the first recurrent nervure interstitial or nearly so; radial cellule in the hind wings truncate and with an appendicular cellule; legs normal; hind tarsi a little shorter than the tibiae, and hind basitarsi about as long as the two following joints together; abdomen with fine

transverse striae, slightly shining; sheath from above very short, broad and backwards broadly rounded, with long curved hairs apically, viewed from the side long and narrow and with narrowly rounded apex.

Head black, sometimes with a slight shifting of metallic green tinge; labrum, palpi, and front part of the clypeus more or less pale brown; thorax black, with slight green shifting on the mesonotum; prothorax reddish; on mesothorax the sides of the lobes of mesonotum and the pleurae reddish; mesosternum black; metathorax black, and only the metapleurae above reddish; tegulae brown; wings hyaline; nervures piceous, the base of the costa and the middle of the stigma a little paler; coxae and trochanters more or less reddish; legs reddish, the fore femora on their base and the tips of the tarsal joints blackish; on the hind legs the femora, the extreme third of the tibiae, and the tarsi almost black; abdomen reddish, without apparent metallic tinge; the propodeum black, the following segments in the middle more or less blackish, the last segment above and the sheath black; the black spots on the dorsum of the abdomen are sometimes very small or wholly wanting.

♂ Head more narrowed behind the eyes, and the vertex also narrower than in the female; antennae somewhat shorter and thicker, and the sutures between the two last joints hardly visible; the apex of the hypopygium broadly rounded.

Head black, with metallic blue or blue-green shiftings; apex of the clypeus and also labrum and palpi pale brownish; thorax black with metallic blue shiftings; coxae, trochanters, and femora for the most part blackish; abdomen black.

Long. corp.: ♀ 5–6 mm., ♂ 4–4.5 mm. Exp. alar.: ♀ 11–14 mm., ♂ 10–12 mm. Antenna, about 2 mm.

S. Aust.: Mount Lofty, taken with sweep net (A. M. Lea and J. G. O. Tepper); Queensl.: Brisbane (A. M. Lea).

This species is probably nearest to *C. atrata* Turner, but is very different in colour. See remarks on the described presumptive varieties of this species.

CLARISSA VARIABILIS var. **COLLARIS** nov.

♀ Head black with a slight green or aeneous tinge; clypeus, labrum, base, and middle of the mandibles and palpi pale brown; thorax black, more or less shifting in metallic green or aeneous; prothorax reddish; the sides of the lobes of the mesonotum and the upper part of the meso- and metapleurae reddish; abdomen wholly black; antennae 11-jointed; otherwise as in *variabilis* m.

S. Aust.: Melrose, October (A. M. Lea), Kangaroo Island (J. G. O. Tepper).

CLARISSA VARIABILIS var. **OBSCURA** nov.

♀ Apex of the clypeus, labrum, and palpi pale brown; angles of the pronotum and tegulae reddish; coxae and trochanters for the most part black; front

femora on the basal half black; on the posterior femora only the extreme apex pale; abdomen black; otherwise as in *variabilis* m.

♂ Coloured as in the male of *C. variabilis* m. type.

Long. corp.: ♀ 5 mm., ♂ 4-4.5 mm. Exp. alar.: ♀ 12 mm., ♂ 10-11 mm.

S. Aust.: Melrose, October (A. M. Lea), probably together with var. *collaris* m.

Both these varieties could perhaps be different species, but I cannot find any distinct difference in their structure, and the males collected in company with *variabilis* type and var. *obscura* are similarly coloured. *C. atrata* Turner, which I know only from Turner's description (12), may probably belong to the same species, but is differently coloured. It is still impossible to clear this question without comparison between typical specimens. *C. carbonaria* m. is, among other, less shining, and the praecipical joints of the antennae are broader than long.

NEOEURYS PUSILLUS sp. nov.

♀ Head viewed from above short and broad, posteriorly moderately emarginate, narrowed behind the eyes, finely reticulate, very finely and shortly hairy, moderately shining; vertex short and broad, about four times as long, almost flat, and without median furrow, and laterally not very distinctly limited; postocellar furrow distinct, but not very deep; posterior orbits moderately developed; eyes long oval, a little converging towards the clypeus; ocelli in a very low triangle, the lateral ones in the supraorbital line; postocellar line a little shorter than the ocellocular line, which is about one and a half times as long as the ocelloccipital line; the front apparently broad and convex, and the lateral furrows curved; below the anterior ocellus a shallow but not very narrow furrow which downwards is connected with the moderately deep, elongate median fovea; frontal crest low; interantennal space about twice as long as the antennocular space; antennae 11-jointed, about as long as the thorax, towards the apex a very little thickened; the scape as long and broad as the pedicel; third joint about as long as the two previous joints together and only a little longer than the fourth; the following joints are longer than their breadth, but diminish by degrees in length, and are a little broader on their apical parts, and their lower corner is a little prominent, the antennae not being distinctly serrate, however; the supraclypeal area very convex and moderately long, laterally rather sharply limited by the deep tentorial foveae; clypeus almost flat and in the front depressed, about twice as broad as long, front margin moderately rounded, and the clypeus well defined above by the distinct supraclypeal furrow; labrum moderately short, apically broadly rounded; malar space about as long as the scape; cheeks moderate; thorax not

very convex, very finely reticulated, with fine and short hairs, moderately shining; parapsidal furrows distinct, but only on front deeper; middle lobes of the mesonotum only in front distinctly separated, very little convex; scutellum flat, the praescutellar furrow slightly curved; scutellum behind a little tapering; wings moderately long; stigma strongly tapering to apex; radial cellule without appendice; the first recurrent nervure interstitial with the first transversocubitalis; nervulus very near the middle of the cell; radiellian cellule truncate and followed by a distinct appendicular cellule; legs long and slender; hind tarsi about as long as the tibiae, hind basitarsus a little shorter than the following joints, and the inner spur of the hind tibiae about half as long as the basitarsus; abdomen elongate, posteriorly compressed from the sides and pointed, very finely transversely striated, very finely hairy, rather shining; sheath viewed from above exerted moderately far, very narrow, still narrower towards the base, behind almost truncate, viewed from the side moderately long and narrow, below slightly emarginated, with rather broadly rounded apex, and furnished with some very short hairs.

Head above towards the antennae with a distinct, metallic-empreous tinge; below the antennae, however, black, but clypeus, labrum, mandibles, and malar space fulvous; palpi greyish, and antennae black with yellow scape; tips of mandibles brownish; prothorax and tegulae fulvous; thorax otherwise empereous; coxae, trochanters, and legs fulvous; the lower part of hind femora, the posterior part of the hind tibiae, and the tarsi more or less greyish infuscated; wings almost hyaline, nervures pale brown, stigma pale testaceous; abdomen above black, without visible metallic tinge: the two last tergites more or less and the sheath basally fulvous; the infolded margins of the tergites and the venter fulvous.

Long. corp., 3.5-4 mm. Exp. alar., 8 mm.

S. Aust.: Mount Lofty Ranges.

This species is probably nearest to "*Clarissa*" *inconspicua* Kirby, which I know only from Kirby's (2) and Turner's (12) very brief descriptions, but is, among other features, very differently coloured, and is nearly allied to the hitherto known *Neoeurys* species, but has shorter and a little thicker antennae and longer clypeus.

NEOEURYS LEAI sp. nov.

♀ Head a little narrower than the thorax, finely reticulate, finely and shortly hairy, shining, viewed from above short and broad, behind the eyes moderately narrowed and behind slightly arcuately emarginated, viewed from the front a little broader than long; vertex about four times as broad as long, laterally well limited by the distinct and divergent vertical furrows, and in the

middle divided by a very shallow longitudinal furrow; postocellar furrow wanting; ocelli in a low triangle, the lateral ones in the supraorbital line; ocelloccipital line about half as long as the ocellocular line, and postocellar line a very little longer than the ocellocular line; ocellar basin rather distinct; eyes oval, slightly converging towards the clypeus; frontal area broad and moderately convex; middle fovea long, oval, moderately deep, and continued upwards as a shallow furrow to the ocellar basin; lateral furrows distinct; frontal crest not developed; interantennal space about three times as long as the antenuocular space; antennae about as long as the thorax, 9-jointed, not distinctly thickened towards the apex, and only slightly serrated below; scape about as long as broad; pedicel a little longer and broader than the scape and a little longer than broad; third joint about one and a half times as long as the fourth; all joints longer than broad; last joint twice as long as its breadth at the base; conic; supraclypeal area moderately long and convex; tentorial foveae small, but deep; clypeus about four times as broad as long, almost flat, its front margin straight; labrum short and broadly rounded; mandibles rather small; malar space about as long as the scape; thorax moderately convex, finely reticulate, finely and sparsely hairy, shining; parapsidal furrows and median furrow only in front distinct; praesentellar furrow slightly curved; scutellum nearly triangular, with a fine longitudinal crest behind; legs moderately long; hind tibiae about as long as the hind tarsi; hind basitarsus about as long as the three following joints together, wings rather long and narrow; stigma long and acuminate; radial cellule without appendicular cellule; first and second cubital cellules equal in length and only a very little shorter than the third; first and second recurrent nervures received in the basal fourth of the second and third cubital cellules; nervulus a little before the middle of the discoidal cellule; radiellian cellule not closed on the outer end; abdomen moderately long, apically compressed from the sides, finely reticulate, very finely and shortly hairy, somewhat shining; sheath viewed from above long, exerted, very narrow, slightly thickened backwards, rounded on the apex, and with some not very long and curved hairs, viewed from the side rather long, not very narrow, on the apex below somewhat roundly excised, and the upper end consequently rather acuminate.

Black with manifest greenish-emerald shiftings on head and thorax; front part of the clypeus, labrum, base of the mandibles and palpi pale brownish; legs blackish, with knees, tibiae, and tarsi yellowish; the hind femora nearly wholly black, and the tips of the hind tibiae and tarsal joints blackish; wings hyaline; stigma and nervures brown; base of the stigma and costa yellowish; abdomen black, without evident metallic colour.

Long. corp., 3.5 mm. Exp. alar., 8 mm.

S. Aust.; Ooldea (A. M. Lea). Unique.

Apparently nearly allied to *Neocurys lasmanicus* Roh., but the antennae are 9-jointed, the ocelloccipital line only half as long as the ocellocular line, the basal half of the stigma pale, the sheath not concave above, but viewed from the side slightly excised behind and on the head and thorax more metallic coloured, and besides shorter and more robust.

NEOEURYS AFFINIS sp. nov.

♀ Head viewed from above short and broad, and behind arcuately emarginated, behind the eyes moderately narrowed, viewed from the front about as broad as long, but towards the clypeus very converging, finely reticulate, finely and sparsely hairy and somewhat shining; vertex short, about three times broader than long, slightly convex, in the middle not divided; lateral furrows indistinct and postocellar furrow wanting; posterior orbits rather narrow; ocelli in a low triangle below the supraorbital line; ocellocular line about one-half longer than the ocelloccipital line, and a little shorter than the postocellar line; eyes large, long oval, towards the clypeus somewhat converging; below the anterior ocellus a semicircular impression; frontal area broad, rather convex, with broadly rounded sides; lateral furrows only near the antennae deep; median fovea rather small and longitudinal; frontal crest not developed; interantennal space about twice as long as the antennocular space; antennae 8-jointed, about as long as the thorax, not thickened towards the apex, and not serrate; scape short, nearly as broad as long, a little shorter and smaller than the pedicel, which is a little longer than broad; third joint about one and a half times as long as the fourth; all joints longer than broad; last joint about three times longer than broad; supraclypeal area long and convex; clypeus only about twice as broad as long, basally somewhat convex, but apically depressed, front margin straight, and the side-angles obtuse; supraclypeal furrow indistinct; tentorial foveae rather small; labrum moderately long and apically broadly rounded; mandibles not very robust; malar space a little longer than the scape; thorax moderately convex, very finely striate, finely and sparsely hairy, somewhat shining; parapsidal furrows moderately deep; middle furrow of the mesonotum in front moderately deep; behind wanting; scutellum very slightly convex, shining; praescutellar furrow semicircular; scutellum behind from the sides a little compressed and somewhat angulated; legs moderately long; hind tibiae a little shorter than the hind tarsi, and the hind basitarsi about as long as the three following joints together; the inner spur of the hind tibiae about half as long as the basitarsus; wings rather long and slender; stigma oval, moderately long and acute; radial cellule in the forewings without appendix; the two first cubital cellules equal in length, the third nearly rectangular and a little longer than the second; the first

recurrent nervure nearly interstitial, the second received in the basal fourth of the third cubital cellule; nervulus before the middle of the discoidal cellule; abdomen long oval, on the apex compressed from the sides, finely reticulate, finely and very sparsely hairy, somewhat shining; sheath viewed from above rather long, on the base moderately broad, and narrowed backwards by degrees, and acuminate, and with some not very long and curved hairs on the apex, viewed from the side long, the lower margin nearly straight, and the apex rather narrowly rounded.

Black with a slight blue-green shifting on the upper part of the head and thorax; apex of the clypeus, labrum, base of the mandibles and palpi pale brownish; legs testaceous with coxae, trochanters, the base of the front femora, two-thirds of the hind femora, tips of the hind tibiae, and the tarsal joints more or less blackish; wings hyaline, nervures and stigma brownish, but the base of the stigma and costa pale yellowish.

Long. corp., 3.5-4 mm. Exp. alar., 7-8 mm.

S. Aust.: Port Lincoln (A. M. Lea).

The 8-jointed antennae are, in this genus, uncommon, but I hesitate to create a new genus or subgenus for this species only on account of this, perhaps not constant character. *Clarissa anomorera* Roh., which also has 8-jointed antennae, is perhaps the same species, but is larger, the antennae according to Rohwer (8) thickened apically, the seventh joint with length and width subequal, stigma dark brown without paler base, and hind tibiae without blackish tips.

NEOEURYS SCUTELLATUS sp. nov.

♀ Head a little narrower than the thorax, viewed from above short, behind the eyes apparently narrowed, viewed from the front longer than broad and downwards tapering; head finely reticulate, finely and shortly hairy, shining; vertex about four times as broad as long, laterally limited by distinct furrows, and in the middle divided by a shallow longitudinal furrow; postocellar furrow distinct, in the middle a little curved forwards and on the outsides of the lateral ocelli strongly bent and united with the lateral foveae; posterior orbits narrow; eyes long oval and converging downwards; ocelli in a low triangle, the lateral ones immediately above the supraorbital lines; ocelloccipital line about twice as long as the ocellocular line, which is about as long as the postocellar line; frontal area broad and apparently convex, with broadly rounded sides; below the anterior ocellus a slight longitudinal furrow, which connects downwards with the long and deep wedge-shaped median fovea; lateral furrows very distinct; frontal crest not distinctly developed; interantennal space about three times as long as the antemocular space; antennae moderately long, apically not distinctly

thickened and not distinctly serrated (the left with eight, the right with only two joints, all the rest broken off); scape about as broad as long; pedicel a little longer than the scape; third joint about one and a half times as long as the fourth; all the others distinctly longer than broad; supraclypeal area moderately long, convex; tentorial foveae rather small but deep; clypeus about three times as broad as long, slightly convex, and in the front a little depressed, with straight front margin, and with blunt side-corners; supraclypeal furrow distinct; labrum moderately long, apically broadly rounded; mandibles rather robust; malar space about as long as scape and pedicel together; thorax rather convex, finely striate, finely and shortly hairy, shining; parapsidal furrows distinct, but not very deep; middle furrow only distinct in front, posteriorly wanting; praescutellar furrow easily curved; scutellum posteriorly narrowed, and behind nearly angular, almost flat, very shining, legs long and slender; hind tibiae a little shorter than the hind tarsi; hind basitarsus as long as the three following joints together; front wings with the radial cellule without appendix; stigma rather long and not very much acuminate, broadest on the middle, and with broadly rounded under-margin; second cubital cellule, about as long as the first, and only a little shorter than the third; first recurrent nervure received near the first transversocubital nervure, the second received in the basal fourth of the third cubital cellule; nervulus received in the first third of the discoidal cellule; abdomen rather long, from the sides apically compressed and somewhat acuminate; finely reticulate, shining; sheath viewed from above broad and long, exerted, tapering backwards by degrees, and apically acuminate, and with some not very long, almost straight hairs, viewed from the side long and narrow, with slightly excised under-margin, backwards rather narrowly rounded, but obliquely excised on the apex; saw apparently long and curved, narrow, and acuminate.

Head blackish with slight aeneous shiftings; front part of the clypeus, the two first joints of the antennae, malar space, base of the mandibles, labrum, and palpi fulvous; prothorax and tegulae fulvous; mesonotum blackish with aeneous shiftings, and with a fulvous spot on the sides of the front part of the middle lobes and on the side lobes near the wings; mesopleurae and mesosternum brownish; scutellum on the sides spotted with fulvous; cenchri brownish; metapleurae pale brownish; legs more or less pale brownish, and with yellowish trochanters and knees; wings hyaline; stigma and nervures brownish; base of the stigma and nervures basally pale yellowish; abdomen fulvous; the dorsum, except the last segment, blackish; the extreme point of the sheath black.

Long. corp., 5 mm. Exp. alar., 11 mm.

Tasm.: Hobart (A. M. Lea). The type is not in good condition, but is no doubt a distinct species.

NEOEURYS VENTRALIS sp. nov.

♀ Head about as wide as the thorax, viewed from above short and broad, seen from the front a little broader than long, behind the eyes a little narrowed, finely reticulate, and besides with some very fine and sparse punctures, finely and sparsely hairy, very slightly shining; vertex very short, about four times as broad as long, laterally distinctly limited by not very deep lateral furrows, in the middle with a very slight longitudinal impression; postocellar furrow wanting; posterior orbits moderately developed; ocelli in a low triangle; the lateral ocelli just below the supraorbital line; ocellocular line about as long as the postocellar line and about twice as long as the ocelloccipital line; eyes moderately large, oval, converging towards the clypeus; frontal area above the median fovea elevated, and with rounded, broadly declivous sides; lateral furrows distinct; below the anterior ocellus a narrow and moderately deep, longitudinal, and shining furrow which downwards is connected with the small and not very deeply impressed median fovea; front below the median fovea almost flat; frontal crest not developed; antennae 14-jointed, slender, about as long as head and thorax together, not conspicuously thickened towards the apex, and not serrated; scape somewhat longer than the pedicel and a little longer than broad; pedicel about as long as broad; third joint longer than the fourth; the following joints diminishing by degrees; last joint obtuse and only very little longer than broad; supraclypeal area convex and rather long; tentorial fovea deep, but not very large; clypeus about three times as broad as long, almost flat, with rounded side-corners, and with a very small rounded incision in the middle of the front margin; supraclypeal furrow indistinct; labrum moderately long, and with broadly rounded apex; malar space about as long as the scape; cheeks not very robust; thorax moderately convex, finely reticulate, and with some hardly noticeable punctures, finely and sparsely hairy, somewhat shining; parapsidal furrows moderately deep; middle lobe of the mesonotum in front with a deep middle furrow, missing behind; scutellum behind a little compressed from the sides, slightly convex, shining; mesosternum impunctate, very shining; legs long and slender; hind tarsi a little longer than the hind tibiae, hind basitarsus a little shorter than the following joints together; wings long and proportionally slender; stigma long and acuminate; radial cellule in the forewings without appendix; the two first cubital cellules about equal in length; the third rectangular and a little longer than the second; first recurrent nervure received in the basal fifth and the second in the basal fourth of the cubital cellules; nervulus before the middle of the discoidal cellule; abdomen finely transverse-reticulated, and with some moderately small remote punctures, somewhat shining; sheath viewed from above short, moderately broad, tapering backwards, and with obtusely pointed

apex, and with some long and curved hairs, viewed from the side moderately long, slightly emarginated below and rounded behind.

Head metallic, with more or less intense cupreous or golden gleams; antennae black; scape, labrum, and palpi fulvous; thorax metallic-green, with cupreous gleams on the mesonotum; legs fulvous, their hind femora more or less black with a slight metallic gleam; the tips of the hind tibiae and the tarsal joints slightly infuscated; wings almost hyaline; nervures and stigma pale brownish, with the base of the stigma and costa pale yellowish; abdomen on the base of the dorsum black, with a slight greenish tinge, apically and underneath with the sheath fulvous.

Long. corp., 5 mm. Exp. alar., 10–11 mm.

Tasm.: Cradle Mountain (H. J. Carter and A. M. Lea).

The scape in one specimen is black and the femora more fulvous.

Nearly allied to *N. tasmanicus* Roh. and *N. caudatus* Morice, but differently coloured. This species cannot be only a colour variety of those, because the sheath and the saw are differently shaped. Hitherto the males of these species could not be distinguished one from the other with certainty. See Morice's (5) remarks on the males.

CEREALCES SCUTELLATA Kirby.

The female of this species and genus was hitherto unknown, and may be described as follows:

Robust; head a little narrower than the thorax, behind the eyes apparently dilated, coarsely and very densely punctured, with very short and feeble hairs, slightly shining, only on the posterior orbits more sparsely punctured; vertex a little broader than long, laterally defined by manifest furrows, but postocellar furrow almost wanting; eyes small, oval, parallel; posterior orbits moderately broad; ocelli in a low triangle, the lateral ones just below the supraorbital line and a little elevated, but the anterior ocellus a little impressed in the front; postocellar line about as long as the ocellocular line and somewhat longer than the ocelloccipital line; frontal area not very apparent, in the middle a little depressed; median fovea rounded and moderately deep; frontal crest very high; antennal furrows manifest; antennae low, inserted near the elypens; antennoocular space about a third of the interantennal space; antennae shorter than the thorax, dilated apically and somewhat club-like, 10-jointed, but the three last joints not very distinctly separated; the third joint a little shorter than the fourth and fifth together; the third to seventh dilated on their ends; the three last joints as broad as long; face below the antennae short, in the middle depressed, laterally elevated and limited by the deep tentorial foveae; elypens about three times as

broad as long, above limited by a distinct supraclypeal furrow, almost flat, in front moderately excised; labrum small, apically rounded; mandibles robust; malar space linear; thorax coarsely and densely punctured, very finely and sparsely hairy, slightly shining, moderately convex; pronotum in front depressed, in the middle transverse striate, behind elevated and posteriorly deeply emarginated; parapsidal furrows moderately deep, the middle furrow deep and only wanting behind; mesonotum margined behind; scutellum almost plain, in the middle divided by a deep longitudinal furrow, the anterior furrow deep and a very little curved; the scutellum is behind sharply margined, and on the sides produced into sharply-pointed lobes; hind tibiae apparently long, slightly S-curved, at the base and apex thickened, with a small knot behind between the first and middle third, and with a middle spur in front between the middle and last third; the apical spurs only a little shorter than the basitarsus; hind tarsi half as long as the tibiae; basitarsus shorter than the two following joints together; claws simple; front wings with a small appendicular radial cellule; the second recurrent nervure nearly interstitial; propodeum sharply transversely striated, dull; abdomen nearly cylindric and finely transversely reticulated, slightly shining; sheath from above apparently short and hardly visible, broad, posteriorly rounded, and with some long hairs, viewed from the side moderately long and apically strongly rounded.

Head black; a small spot on the hind angles of the vertex, a long stripe on the posterior orbits, a small spot above and below the antennae, a little larger spot between the antennae and the eyes and the hind part of the clypeus yellow; the base of the mandibles and palpi brown; thorax black; the lateral and hind margins and the angles of the pronotum, the lateral margins of the side-lobes of the mesonotum, as well as a small spot on the middle of the mesopleurae, and the parapternum, the epimera of the mesopleurae all yellow; tegulae pale brown; scutellum brown with paler margins; coxae on their tips and the trochanters more or less pale yellow; femora black; the intermediate femora above with a pale stripe and the hind femora broadly striped with yellow above, but the knees black; tibiae and tarsal joints yellowish, with brownish tips on the hind legs; wings slightly yellowish; nervures and stigma dark piceous; the basal half of the costa and base of some other nervures yellowish; abdomen piceous; the second and sixth tergites behind broadly margined with yellow, and the other tergites in front and behind a little paler brownish; venter more or less pale brown; sheath posteriorly brown.

Long. corp., 14 mm. Exp. alar., 25 mm.

The single female was collected at Sydney, is much more robust than the male, and reminds one of some species of *Perga*.

PERGA DORSALIS Leach.

Perga affinis Kirby is certainly not a distinct species, rather only a variety of *P. dorsalis* Leach.

PERGA SCHIODTEI Westw.

The female described by Westwood (13) in his monograph is apparently not the true female of this species, as Morice (5) has already stated. He describes the true female briefly, giving information only concerning its colour.

Head a little narrower than the thorax, from above short, and behind the eyes not dilated, above coarsely and densely punctured, dull, below more sparsely punctured and shining, sparsely and very finely hairy; vertex nearly as wide as long, slightly convex, on the sides sharply limited, in front defined by a slight postocellar furrow, and in the middle divided by a slight longitudinal furrow; posterior orbits moderately developed; eyes rather large, slightly oval, parallel; ocelli in a moderate low triangle, the lateral ones just below the supraorbital line; postocellar line about as long as the ocellocular line, and somewhat shorter than the ocelloccipital line; the anterior ocellus impressed in the front, and the lateral ocelli pressed outwards by a sharply-edged crest, which begins in the middle of the front margin of the vertex, these being downwards broader, higher, and obtuse, and passing to the antennae; below the anterior ocellus is a not very deep groove, downwards continued as a narrow furrow, which traverses the moderately convex face to the clypeus; antennal furrows manifest; antennae about as long as the interocular space, 6-jointed; the intermediate joints longer than broad; clypeus about four times as broad as long, in front truncate, with some moderately great but remote punctures, very shining; labrum about semi-circular; malar space very short; thorax coarsely and densely punctured, almost dull; scutellum with some large but remote punctures, shining, and without middle furrow; forewings with the third cubital nervure strongly curved and the first not obliterated; the hind tarsi of the male about as long as the tibiae, of the female apparently shorter (5 : 6.5); abdomen with some fine punctures, on the propodeum very finely reticulate, shining, sheath from above short and not very broad, behind nearly truncate, with dense, but moderately long hairs, viewed from the side strongly curved, but apically truncated; hypopygium of the male truncated behind.

The metallic gleams on the side lobes of the mesonotum and the dorsum of the abdomen are only evident in some aspects. The figure in Westwood's paper is very good. In the female the hind tibiae on their last third are blackened.

Does this species in fact occur at Adelaide, in South Australia, as Westwood writes? The South Australian Museum possesses no specimens from

South Australia. The above described specimens were collected in Western Australia (Warren River), and all the specimens described by Morice were from Western Australia (Swan River).

PERGA BREVIPES sp. nov.

♀ Head from above short, from the front depressed and about as long as wide, behind the eyes a little dilated, with remote but large punctures, very shining, moderately hairy; vertex large, a little broader than long; lateral furrows distinct, postocellar furrow slightly impressed, median furrow not developed; posterior orbits moderate; eyes not very large, oval, not converging downwards; ocelli in an apparently low triangle, well below the supraorbital line; postocellar line a little longer than the ocellocular line, but ocelloccipital line about one and a half times as long as the postocellar line; below the anterior ocellus a distinct furrow, which below the interantennal space is enlarged to an almost plain triangular area; antennal crest wanting, but above the antennae a moderately broad and high crest upwards, being enlarged, and by degrees disappearing below the lateral ocellus; antennal furrows moderately deep; antennae a very little longer than the distance between them, 6-jointed, inserted near the clypeus; scape broad, and about twice longer and distinctly broader than the pedicel, which is much broader than long; the following joints are short, but the third and fourth distinctly longer than their width; the fifth about as long as the width of the apex; the sixth club-like and as long as the three previous joints together; tentorial foveae not very deep; clypeus about four times as broad as long, almost plain, in front not very deeply emarginated; labrum moderately long, apically broadly rounded; cheeks robust; malar space linear; thorax broad and apparently convex, largely and densely punctured, very slightly shining, sparsely hairy; parapsidal furrows moderately deep, median furrow in front deep, but wanting behind; side lobes of the mesonotum with two longitudinal furrows, and on the sides somewhat carinated; scutellum large, almost flat, largely but not very closely punctured, and more shining than the rest of the notum, without middle furrow; forewings with the third cubital nervure strongly curved; hind tarsi short, shorter than the half of the hind tibiae; hind basitarsus a little longer than the three following joints together; abdomen almost broad, a little depressed, and behind a little compressed from the sides; propodeum coarsely and densely punctured, and with apparently dense hairs; abdomen otherwise with very fine reticulae and shining; sheath viewed from above moderately narrow, short, with nearly parallel sides, posteriorly truncate, and with long and curved hairs, from the sides not very long, strongly curved, but on the apex straightly excised.

Head pale brownish-yellow; mandibles on the apex piceous; front with a blackish spot round the ocelli; the prothorax, the posterior corner of the middle lobe of the mesonotum, the margins of the lateral lobes, the scutellum, and the upper parts of the pleurae all yellowish; meso- and metasternum blackish, and the hind coxae more or less piceous; wings yellowish, nervures yellowish-brown, the stigma in the middle darker brown; abdomen pale yellowish brown; in some specimens the dorsum of the abdomen almost entirely blackish, with violaceous gleams in certain lights; in other specimens this spot is more or less reduced, sometimes to a narrow dark line in the middle of the abdomen; the middle of the venter more or less infuscated; the base of the sheath piceous.

Long. corp., 17-21 mm. Exp. alar., 36-40 mm.

S. Aust.: Yeelanna (W. J. Spafford), Kangaroo Island (J. G. O. Tepper).

In Morice's table of the genus *Perga* this new species runs to *belinda* Kirby or to the *klugii* group. *P. belinda* Kirby is very differently coloured, the hind tarsi are long, and the first cubital nervure is nearly obsolete. In the *klugii* group the antennae are longer in all species. *P. klugii* besides has the scutellum impunctate, *P. kirbyi* Leach has a dense and rugose punctured scutellum, which also is bisected by a distinct longitudinal impression, *P. brevitarsis* Morice likewise has the scutellum in the middle bisected and with only very few and hardly noticeable punctures, and *P. agnata* Morice, as the last, has the hind tarsi of normal length.

PERGA MAYRII Westw.

In some specimens of this species the scutellum is wholly black.

PERGA CRESSONI Westw.

The abdomen of this species is sometimes more or less blackish.

PERGA CHRISTII Westw.

The antennae of this species, which, according to Morice hitherto not described, are very short and pale yellow, with infuscated scape and pedicellum.

PERGA WAITEI sp. nov.

♀ Head from above short, considerably more slender than the thorax, and behind the eyes a little narrowed, viewed from the front about as broad as long, sparsely and shortly hairy, coarsely, but more or less remotely punctured, shining; vertex large, a little broader than long, moderately convex, in the middle divided by a distinct longitudinal furrow, and with some coarse punctures; vertical furrows deep; postocellar furrow laterally distinct, but in the middle

wanting; posterior orbits narrow; eyes large and parallel; front more densely punctured; ocelli in a low triangle well below the supraorbital line; the anterior ocellus impressed in the front and surrounded by a distinct furrow, which is forwards continued as an inconsiderable, elongate median fovea; the frontal area is in the middle impressed and laterally edged with not very high but forwards dilated crests; occipital line about twice as long as the ocellular line, and about equal in length with the postocellar line; frontal crest not very distinctly developed, and in the middle broadly interrupted; antennal foveae not very apparent; the antennae are 6-jointed, very short, and only about as long as the interantennal space; scape evidently longer and broader than the short pedicel; the third joint twice as long as its width, the two following joints broader than long, and the sixth joint as long as the three previous joints together; supra-clypeal area short, in the middle concave, and laterally limited by moderately high crests; tentorial foveae deep; clypeus short, flat, about four times broader than long, in the front nearly truncate, but in the middle with a short incision, and with obliquely truncate side-angles, and basally limited by a manifest supra-clypeal furrow; labrum moderately long, apically rounded; mandibles robust; malar space very short; thorax broad and high, coarsely and closely punctured, almost dull, sparsely hairy; pronotum short, vertical, behind deeply excised, with an apparent obtuse side-bump, and on the side-angles more remotely punctured and shining; parapsidal furrows deep; middle furrow deep, but posteriorly wanting; side lobes of the mesonotum on the sides with a distinct longitudinal furrow and laterally sharply edged; scutellum almost flat, in the middle with a very short longitudinal impression, and with some coarse and remote punctures, besides some fine and hardly visible ones, it is very shining, and has small hind lobes; mesopleurae with coarse and remote punctures, shining; forewings with the stigma long and acuminate, and with the anterior margin apparently curved; the first transverso-cubitalis only in the middle a little paler, and the third nervure strongly curved; hind tarsus distinctly shorter than half of the hind tibia, and the hind basitarsus longer than the three following joints together; abdomen sparsely hairy and finely transversely striate, with some remote and coarse, but not very deep, punctures, very shining; sheath viewed from above short, broad, narrowed backwards, but on the apex truncated, with close but moderately long hairs, viewed from the sides moderately long, strongly curved, but on the apex obliquely truncated.

Head, antennae, and palpi sulphureous; occiput partly, a large spot which covers the vertex, a part of the posterior orbits, the front, the face to somewhat below the anterior ocellus, a stripe to the clypeus and the supra-clypeal furrow, blackish with a faint blue tinge; tips of the mandibles piecons; thorax black with yellow markings; prothorax in the middle black, the margins yellow; tegulae yellow; mesonotum black, the hind corner of the middle lobe yellow, and the sides

of the lateral lobes marked with yellow; scutellum and hind-corners yellow; mesopleurae yellow, but meso- and metasterna black; metapleurae marked with yellow; wings hyaline, with a slight yellowish tinge; costa and bases of the other nervures yellow, but stigma and the rest of the nervures brownish; legs yellow; bases of the middle and hind coxae blackish; coxae and trochanters otherwise yellow; abdomen dorsally and ventrally broadly black, with bluish gleams; base of the sheath blackish.

Long. corp., 19 mm. Exp. alar., 36 mm.

S. Aust.: Murray River (H. S. Cope). Unique.

In Morice's key this species runs to *P. christii* Westw., but is very differently coloured and punctured, and besides is larger and more robust.

Named in honour of Mr. Edgar R. Waite, Director of the South Australian Museum.

PERGA MORICEI sp. nov.

♀ Head a little narrower than the thorax, behind the eyes not narrowed, densely and coarsely punctured, with moderately dense and short hairs, almost dull; vertex large, slightly convex, about as broad as long, in front a little broader than behind, in the middle with a moderately deep longitudinal furrow; lateral furrows and postocellar furrow deep; hind orbits moderately developed; lateral ocelli just below the supraorbital line; ocelloccipital line about one and a half times as long as the ocellocular and the postocellar lines; the anterior ocellus a little impressed in the front, and surrounded by a distinct but not very deep furrow, which is continued forwards as a broad but moderately deep furrow, and reaches the clypeus; frontal crest high, but not very sharp; in the middle broadly and deeply interrupted; lateral foveae distinct; eyes oval, moderately large; antennae 6-jointed, very little longer than the interantennal space; the scape is longer but not much broader than the pedicel, which is broader than long, the last joint a little longer than the three previous joints together; supra-clypeal area moderately short and laterally limited by longitudinal crests; clypeus almost flat, about three times as broad as long, with some remote punctures, in front broadly, but shallowly emarginated, and with a shallow, little curved transverse impression, and with rounded side-corners; basally limited by a distinct furrow; labrum moderately long, apically broadly rounded; malar space short; mandibles robust; thorax moderately convex, densely and rugosely punctured, sparsely and shortly hairy, almost dull; pronotum short, behind deeply emarginated, on the side lobes in the middle impressed; parapsidal furrows distinct, but not deep; median furrow distinct, but behind wanting, and the hind corner of the middle lobe without punctures, and shining; lateral lobes laterally sharply margined; scutellum almost flat, with some remote but coarse

punctures, and in the middle with a shallow longitudinal furrow, shining; mesopleurae and mesosternum with coarse but not very dense punctures, shining; forewings with a moderately large radial appendicular cell, long and acuminate stigma, the first transversocubital nervure not really absent, but pale; the third nervure not very strongly curved; hind tarsi somewhat shorter than the hind tibiae, and the hind metatarsus as long as the two following joints together; abdomen very finely reticulate, and the tergites besides with remote punctures on the hind margins, sparsely and finely hairy, and very shining; the abdomen on the apex a little compressed from the sides; sheath viewed from above small, but dilated backwards, and behind slightly truncated, and furnished with some moderately long and curved hairs, viewed from the side long, and strongly curved apically.

Head pale chestnut-brown; the antennae dark brown, and the tips of the mandibles piceous; the middle of the vertex, lateral parts of the lateral orbits, supraclypeal area, clypeus, and labrum yellowish; thorax pale chestnut-brown; the pronotum and tegulae, the hind corner of the middle lobe of mesonotum, scutellum, postsentellum, and pleurae yellowish; forelegs, trochanters, and coxae yellowish; the hind legs dark chestnut-brown; wings slightly yellowish, stigma and nervures more or less brownish; abdomen dorsally pale brownish, ventrally yellowish.

Long. corp., 17-18 mm. Exp. alar., 24-26 mm.

W. Aust.: Boulder, Jan. 24, 1899 (A. Bethune).

This new species is probably nearest to *P. belinda* Kirby, but is larger, the thorax paler yellowish, and the head behind the eyes with blackish spots. Morice (5) states that the hind tarsi are pale, but Kirby (1) describes them as reddish-chestnut. The saw of the new species differs very much from the saw of *P. belinda* (according to Morice's photograph), and is more like the saw of *P. esenbecki* Westw.

Named in honour of the Rev. F. D. Morice, who by his type-studies of the Australian sawflies has very much contributed to the knowledge of these interesting insects.

PERGA RUBRIPES Roh.

I think *Perga rubripes* Roh. is only a colour variety of the common species *P. bella* Newm.

PERGA RUGICEPS sp. nov.

♀ Head broad, nearly as broad as the thorax, behind the eyes somewhat dilated, above wholly coarsely rugose, dull, on the lateral orbits and below the antennae more remotely punctured and shining, with short remote hairs; vertex large, somewhat convex, about as broad as long, in the middle without manifest furrow; vertical furrows distinct, but not very deep; postocellar furrow shallow;

posterior orbits large; lateral ocelli a little elevated in the supraorbital line; the anterior ocellus impressed in the front, and surrounded by a distinct furrow, which is continued forwards as a moderately broad furrow; ocelloccipital line considerably longer than the ocellocular line, which is about equal in length with the postocellar line; frontal area narrow, moderately depressed, and laterally limited by not very high crests; lateral foveae distinct; eyes oval, moderately large, parallel; antennae 6-jointed, low inserted, a little longer than the inter-antennal space; scape evidently longer, but not much broader than the short pedicel; the three following joints very little longer than broad, and the sixth about as long as the three previous joints together; frontal crest not very distinct, and incised by a moderately broad furrow; supraclypeal area short; tentorial foveae moderately deep; clypeus short, about three times broader than long, in the middle of the anterior margin slightly incised, almost flat, and with rounded side-corners, basally limited by a deep furrow; labrum short, apically broadly rounded; mandibles robust; malar space rather short; thorax moderately convex, coarsely rugose, dull; pronotum short, and behind deeply emarginated; parapsidal furrows distinct, moderately deep; middle furrow deep, but posteriorly wanting; posterior corner of the middle lobe shining; lateral lobes shallowly furrowed and laterally sharply margined; scutellum almost flat, with some coarse, remote punctures, and in the middle with a shallow longitudinal impression; hind-corners moderately small; mesopleurae rugose; mesosternum remotely punctured and shining; forewings with an apparently large appendicular cell; the first transversocubital nervure distinct, the third strongly curved; stigma moderately long and acuminate; hind tarsi longer than the half hind tibia; hind basitarsus as long as the three following joints together; abdomen a little depressed from above, backwards acuminate and compressed from the sides, very finely transversely reticulate, and with some shallow and remote punctures on the hind margins of the tergites; sheath from above apparently short, narrow, rather acuminate backwards, moderately hairy, viewed from the sides long and rather strongly curved.

Head dark chestnut-brown, the middle of the vertex, lateral orbits, antennal crests, antennae, and the face below the antennae paler yellowish; thorax chestnut-brown, the tegulae, hind corner of the middle lobe of the mesonotum, scutellum, and mesopleurae paler yellowish; legs yellowish; the apices of the hind femora, tibiae, and tarsal joints infuscated; forewings somewhat yellowish, with pale brown stigma and nervures; hindwings almost hyaline; abdomen above pale brownish, below paler yellowish.

♂ The forewings are more curved near the stigma, the stigma is a little less acuminate, the abdomen is more depressed, and the last ventral-segment is moderately long, behind broadly rounded, but in the middle slightly sinuated. The dark spot on the head is more blackish, but the vertex wholly pale, the middle

and side lobes of the mesonotum in the middle blackish; otherwise as in the female.

Long. corp., 15-18 mm. Exp. alar., 30-31 mm.

S. Aust.: Ardrossan and Kangaroo Island (J. G. O. Tepper).

This species seems to be nearest to *P. belinda* Kirby, but the antennae are not black, the tips of the posterior femora, tibiae, and tarsal joints are distinctly blackened; the third to fifth joints of the antennae are as long as broad.

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